REMARKS

Applicants thank the Examiner for the thorough consideration given the present application.

Claims 1, 3-6, 8-12 and 14-17 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks as set forth below.

Claim for Priority

It is gratefully acknowledged that the Examiner has recognized Applicants' claim for foreign priority and the receipt of the certified copy. In view of the fact that Applicants' claim for foreign priority has been perfected, no additional action is required from the Applicants at this time.

Drawings

It is gratefully acknowledged that the Examiner has accepted the formal drawings filed on November 17, 2000 for examination purposes. It is respectfully submitted that the formal drawings comply with the requirements of the U.S.P.T.O. If the Official Draftsman has any objections to the formal drawings, he is respectfully requested to contact the undersigned as soon as possible so that appropriate action may be taken.

The Examiner has objected to the drawings and required that the lines connecting Figure 7c and 7d be removed. By way of a separate letter requesting approval of drawing changes, this correction has now been accomplished.

Specification

The Examiner objected to the Specification due to the phrase "the present invention" on page 1, line 9. This phrase has now been amended to make this more clear. Applicants have followed the Examiner's recommendation that the clarification presented in the last amendment be added to the specification. Accordingly, Applicants have changed the word "invention" to "specification". Thus, this paragraph now refers to Figures 8 and 9 of the present specification which is appropriate.

Rejection under 35 USC §112

Claims 1-6 and 8-17 stand rejected under 35 USC §112 as being indefinite. This rejection is respectfully traversed. By way of the present amendment, Applicants have amended the claims to avoid the problem pointed out by the Examiner. In particular, in all of the claims, the word "type" has been removed from the preamble. Also, in claims 3, 4, 14 and 15, the word "generally" has been removed. Accordingly, Applicants submit that the indefiniteness rejection has

now been overcome.

Rejection under 35 USC §102

Claims 1, 2, and 6 stand rejected under 35 USC §102 as being anticipated by Regueiro (5,339,776). This rejection is respectfully traversed. Applicants submit that the Regueiro reference does not teach every feature of the claimed invention.

First, claim 1 has been amended to incorporate the feature of cancelled claim 2. Thus, claim 1 now describes the lubricating apparatus as a combination of elements including a cylindrical relief valve having a longitudinal axis disposed in a horizontal direction which is both parallel to a longitudinal axis of the main gallery and a longitudinal axis of the crank shaft of the engine.

The Regueiro reference shows an internal combustion engine having a relief valve 54, a main gallery 22 and a crank shaft 24. The Examiner states that the relief valve is parallel to the main gallery and is also parallel to portions of the crank shaft. In regard to claim 2, the Examiner states that the bases of the relief valve are horizontal. It is clear from Figure 1 of the reference that the longitudinal axis of the relief valve is aimed in a vertical direction, as is the axis of the main gallery. However, the axis of the crank shaft is horizontal. Thus, this reference does not show a longitudinal axis of a relief valve which is disposed in a horizontal direction nor does it show a longitudinal axis of a relief valve being parallel to the longitudinal axis of the crank shaft. Since this reference does not show these

features, Applicants submit that the combination of elements described in claim 1 is not met by the Regueiro reference. Accordingly, claim 1 defines there over.

Rejection under 35 USC §103

Claims 3-5 stand rejected under 35 USC §102 as being obvious over Regueiro in view of Yamanaka et al. (4,638,856). This rejection is respectfully traversed. Applicants submit that the claimed features would not be obvious over this combination of reference.

Applicants submit that these claims are allowable based on their dependency from claim 1. Further, these claims now recite a combination of elements describing the lubricating apparatus, including the cylindrical relief valve as described in claim 1 and also further describing the details of the relief valve including the L-shaped body, the cylindrical valve body and other features.

The Examiner admits that Regueiro does not disclose an L-shaped body and other structural details of the valve and relies on the Yamanaka et al. reference to show these features. Applicants submit that Yamanaka et al. reference does not describe a valve body having an L-shape. Instead, element 57 is described at column 6, line 3 as a mounting member for mounting the oil cooler on an engine block. While a relief valve is included in the longer section of the mounting member, the valve section ends long before section 57B starts. Thus, column 6,

line 59 points out that the oil passes through the relief valve and flows into the main inlet passage 53. Thus, the valve operation ends before the passage bends to the left. Accordingly, Applicants submit that an L-shaped body is not properly seen in the Yamanaka et al. reference. For this reason, Applicants submit that claim 3-5 are additionally allowable.

Claim 8 stands rejected as being obvious over Takahashi et al. (5,778,848) in view of Yamanaka et al. and Niizato et al. (4,928,641). This rejection is respectfully traversed.

The Examiner points out that the Takahashi et al. reference shows an engine including an oil tank 58 with a relief valve 73 provided in the oil tank. A lead pipe 72 is connected with an outlet pipe 77 of an oil filter. The Examiner admits that the details of the valve body are not shown by Takahashi et al. and relies on Yamanaka et al. to show these features. The Examiner also relies on Niizato et al. to show the L-shaped valve path.

Claim 8 as presently amended includes a combination of elements describing the lubricating apparatus including an oil tank mounted on an end of an engine to reduce the height of the engine, a relief valve, a lead pipe, and a cylindrical valve body where the valve body opens the discharge port to relieve hydraulic pressure. In the claimed apparatus, the mounting of the oil tank with the relief valve provided therein allows the height of the engine to be reduced so

that the center of gravity of the boat may be lowered. This is an important consideration in watercraft since the lowering of the center of gravity makes the craft more stable.

The Takahashi reference shows an outboard motor with an oil tank on the bottom of the engine. Because of the shape of an outboard motor, the presence of the oil tank on the bottom of the engine is not critical. The mounting of the motor on the boat is more determinative of the center of gravity of the motor than the placement of the oil tank. Accordingly, it would not be obvious to move the oil tank to a point at an end of the engine rather than below it in order to meet the terms of the claim. Likewise, the other references do not teach this concept and accordingly Applicants submit that claim 8 would not be obvious over the combination of references.

Claims 9 and 10 stand rejected as being obvious over Takahashi et al. in view of Yamanaka et al. This rejection is respectfully traversed.

Claim 9 has been amended in a similar fashion to claim 8 to describe a combination of elements for a lubricating apparatus including an oil tank mounted on an end of the engine in order to reduce the height of the engine, a relief valve and lead pipe, cylindrical valve body, a stopper, a spring and a spring stop. Applicants submit that claim 9 defines over this two way combination of references for the same reasons discussed above in regard to claim 8.

Accordingly, this claim is also considered to be allowable.

Claim 11 stands rejected under 35 U.S.C. § 103 as being obvious over Takahashi et al. in view of Yamanaka et al. and further in view of Matsuto et al. (WIPO 99/14109). This rejection is respectfully traversed.

Claim 11 is dependent claim which depends from allowable claim 9 and as such is also considered allowable. The Examiner cited the Matsuto et al. reference to show an oil tank and a strainer. However, Applicants submit that this additional reference does still not aid the other references in overcoming their deficiencies as discussed above in regard to claim 9. Accordingly, Applicants submit that this claim is likewise allowable.

Claims 12, 13 and 17 stand rejected under 35 U.S.C. § 103 as being obvious over Regueiro in view of Nanami et al. (5,951,343). This rejection is respectfully traversed.

By way of the present amendment, claim 13 has been cancelled and it's limitations incorporated into claim 12. In addition, the longitudinal axis of the crank shaft, the main gallery and relief valve have been specified. Accordingly, claim 12 now describes a combination of elements for an engine including a crank shaft, a main gallery and cylindrical relief valve where the longitudinal axis of the three are parallel and where the axis of the cylindrical relief valve is in a horizontal direction. These limitations are similar to those presented in claim one so that

claim 12 is allowable over the Regueiro reference for the same reasons cited above in regard to that claim. The Examiner cited the Nanami et al. reference to show the use of the dry sump type engine. Applicants submit that the claim still defines over the combination of references for the same reasons.

Claim 14-16 stand rejected under 35 U.S.C. § 103 as being obvious over Regueiro in view of Nanami et al. as applied to claim 12 and further in view of Yamanaka et al. Applicants submit that these claims are allowable based on there dependency from claim 12. The Examiner added the Yamanaka et al. reference to show the L-shaped configuration. However, Applicants submit that this reference does not also show this feature as described above in regard to claim 3. Accordingly, Applicants submit that the claims are allowable based both their dependency from allowable claim and the additional features not shown by the combination of references.

No Prosecution History Estoppel

Claims 1, 8, 9 and 12 are hereby presented in independent form. No prosecution history estoppel would apply to the interpretation of the limitations set forth in claims 1, 8, 9 and 12 and the claims that depend therefrom in view of the fact that the subject matter has been continuously presented since the original filing date of the present application.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. In view of this, reconsideration of the rejections and allowance of all the claims are respectfully requested.

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but to merely show the state of the art, no comments need to be made to respect thereto.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert F. Gnuse (Reg. No. 27,295) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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JMS/RFG/abs
0505-0714P
Attachment

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please replace the paragraph beginning on page 1, line 9, with the following rewritten paragraph:

-- Figures 8 and 9 of the present [invention] application illustrate a dry sump type engine as disclosed in the above-described document. This engine, designated by reference numeral 1, is mounted on a small-sized planing boat. --

IN THE CLAIMS:

Claims 2 and 13 have been cancelled.

The claims have been amended as follows:

1. (Amended) A lubricating apparatus for a dry sump [type] engine, comprising:

a cylindrical relief valve, said cylindrical relief valve having a longitudinal axis disposed in a horizontal direction and being disposed in parallel to a longitudinal axis of a main gallery and a longitudinal axis of a crank shaft of the engine.

3. (Twice Amended) The lubricating apparatus for a dry sump [type] engine according to claim 1, wherein said relief valve further comprises:

[a generally] an L-shaped body, having a longer longitudinal part parallel to

said main gallery and a shorter transverse part connected at one end to and in communication with the main gallery, said L-shaped body including a discharge port formed therein;

a cylindrical valve body movably received within said L-shaped body to open and close said discharge port; and

wherein when hydraulic pressure within said main gallery becomes a predetermined value, said cylindrical valve body is operated to open said discharge port to relieve the hydraulic pressure.

4. (Twice Amended) The lubricating apparatus for a dry sump [type] engine according to claim 1, wherein said relief valve further comprises:

[a generally] an L-shaped body, said L-shaped body including a long pipe parallel to said main gallery and a short pipe;

a cylindrical valve body slidably inserted in said long pipe;

a stopper for restricting movement of said cylindrical valve body in said long pipe;

a spring for biasing said cylindrical valve body toward said stopper;

a spring stop for pressing said spring; and

a mounting portion formed integrally with said L-shaped body for mounting said relief valve to a bottom wall portion of the main gallery.

5. (Amended) The lubricating apparatus for a dry sump [type] engine according to claim 4, wherein said long pipe includes a discharge port formed therein, and wherein when said cylindrical valve body is moved against the bias of said spring, the discharge port is opened to allow hydraulic pressure in the main gallery to be relieved.

6. (Amended) The lubricating apparatus for a dry sump [type] engine according to claim 1, further comprising:

a oil tank; and

a strainer for straining oil recovered in the oil tank, said strainer being provided in said oil tank.

8. (Twice Amended) A lubricating apparatus for a dry sump [type] engine comprising:

an oil tank mounted on an end of said engine, so as to reduce a height of said engine; and

a relief valve provided in said oil tank;

wherein said relief valve further comprises:

a lead pipe, said lead pipe being connectable with an outlet pipe of an oil filter, said lead pipe including a discharge port formed therein;

a cylindrical valve body movably received within an L-shaped body to open and close said discharge port; and

wherein when hydraulic pressure within said main gallery becomes a predetermined value, said cylindrical valve body is operated to open said discharge port to relieve the hydraulic pressure.

9. (Amended) A lubricating apparatus for a dry sump [type] engine comprising:

an oil tank mounted on an end of said engine, so as to reduce a height of said engine; and

a relief valve provided in said oil tank

wherein said relief valve further comprises:

a lead pipe, said lead pipe being connectable to an outlet of an oil filter;

a cylindrical valve body slidably inserted in said lead pipe;

a stopper for restricting movement of said cylindrical valve body in said lead pipe;

a spring for biasing said cylindrical valve body toward said stopper; and

a spring stop for pressing said spring.

10. (Amended) The lubricating apparatus for a dry sump [type] engine

according to claim 9, wherein said lead pipe includes a discharge port formed therein, and wherein when said cylindrical valve body is moved against the bias of said spring, the discharge port is opened to allow hydraulic pressure in the outlet of the oil filter to be relieved.

11. (Twice Amended) A lubricating apparatus for a dry sump [type] engine, according to claim 9, further comprising:

a strainer for straining oil recovered in said oil tank provided in said oil tank.

12. (Amended) A dry sump [type] engine, comprising:

a crank shaft having a longitudinal axis mounted for rotation therein;

a main gallery having a longitudinal axis extending in a [longitudinal] direction parallel to said longitudinal axis of said crank shaft; and

a cylindrical relief valve, said cylindrical relief having a longitudinal axis disposed in a horizontal direction and being disposed in parallel to said longitudinal axis of said main gallery and said longitudinal axis of said crank shaft.

14. (Twice Amended) The dry sump [type] engine according to claim 12, wherein said relief valve further comprises:

[a generally] an L-shaped body, having a longer longitudinal part parallel to

said main gallery and a shorter transverse part connected at one end to and in communication with the main gallery, said L-shaped body including a discharge port formed therein;

a cylindrical valve body movably received within said L-shaped body to open and close said discharge port; and

wherein when hydraulic pressure within said main gallery becomes a predetermined value, said cylindrical valve body is operated to open said discharge port to relieve the hydraulic pressure.

15. (Twice Amended) The dry sump [type] engine according to claim 12, wherein said relief valve further comprises:

[a generally] an L-shaped body, said L-shaped body including a long pipe parallel to said main gallery and a short pipe;

a cylindrical valve body slidably inserted in said long pipe;

a stopper for restricting movement of said cylindrical valve body in said long pipe;

a spring for biasing said cylindrical valve body toward said stopper;

a spring stop for pressing said spring; and

a mounting portion formed integrally with said L-shaped body for mounting said relief valve to a bottom wall portion of the main gallery.

16. (Twice Amended) The dry sump [type] engine according to claim 15, wherein said long pipe includes a discharge port formed therein, and wherein when said cylindrical valve body is moved against the bias of said spring, the discharge port is opened to allow hydraulic pressure in the main gallery to be relieved.

17. (Twice Amended) The dry sump [type] engine according to claim 12, further comprising:

a oil tank; and

a strainer for straining oil recovered in the oil tank, said strainer being provided in said oil tank.